THE GENESEE FARMER.

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THE GENESEE FARMER.

SATURDAY, OCT. 3, 1835.

On Suckering Indian Corn, &c.

The following extracts are from the pen of a practical farmer. We do not think that the usefulness of an agricultural paper depends more on communicating new discoveries than on reminding farmers of what they already know; and on calling up ideas that will sharpen the faculties of observation and reflection. The extracts will illustrate our meaning.

"It was the former practice in this neighborhood carefully to pull all suckers from Indian corn. This operation is now entirely abandoned; nature is left to do her own business in her own way; and farmers have the pleasure of gathering some more bushels of corn than they otherwise would, besides saving all the labor of doing worse than nothing. Providence always acts wisely; and why should we by our cunning cheat ourselves? I hope that my countrymen generally, will soon be rational enough, and exhibit common sense enough, to abstain from docking horses, suckering corn, &c.

"It is deemed best where corn is intended to be cut up, to let the crop stand till it is nearly mature, remembering however that the work should be done in time to escape the frost. The fodder is considered better, and the grain is absolutely so.

"Good management requires that all refuse vegetable matter should be conveyed into the barnyard, to be converted into manure, and thence to be returned to the soil, which we so often see impoverished by the wretched plan,—or rather all want of plan,—of permitting weeds and other refuse stuff to lie neglected about the farm while the cattle lie about the lanes, or in the public road; and I have often seen the fields yielding not more than a pittance as a *proper* remuneration for the slovenly manner of putting in the crops."

Draining.

The present time will be found well adapted to performing this work wherever the wetness of the early part of the season prevented. The great importance of draining in such lands as suffer from wet, cannot be too highly appreciated. The present season has eminently shown the bad effects resulting from too little attention to it; many instances have been seen, where planting of crops has been deferred at least a month later than it should have been, on account of the wetness of the soil; or where it has been done early, the crops have been nearly spoiled, by the land being too wet at the time, and subsequently baking. By thorough ditching, all this might have been prevent. Where land is well drained, the farmer may commence his work early in the spring, and he is not hurried in any of his operations; time is afforded for having crops well put in, which being done in season, they enjoy the full benefit of the warm weather of spring and summer, and become well matured before autumnal frosts.

Fields unequally moist should be drained so as to render their dryness uniform, so that in ploughing or cultivating, one part may not be too dry while another part is injured by working it to a mortar.

Open drains should never be dug, except for carrying off streams and surface water. When water stands in the soil, in order to carry it off completely, it is necessary to cut a number of ditches through different parts of the field, and these must often be of considerable depth. If open drains were employed, a large part of the field would be most inconveniently occupied by them. Besides, in an open ditch of much depth, far more work is required in digging, than in one which is covered. Suppose for instance, that it is intended to cut a ditch three feet deep. Now it is a rule, established by experiment, that a bank of earth, in order to stand, should have a descent of one foot to every foot and a half of base. Therefore in a ditch three feet deep, each bank must occupy four feet and a half of ground, consequently the whole ditch must be nine feet wide. This, it is evident, would require far more labor to dig, than one a foot and a half wide, with perpendicular sides, such as would be needed for covering. It would, besides, occupy a great deal of land, whereas a covered one occupies none at all.

Covered ditches, cut in the autumn, through sandy or other soft soil, should be filled up as soon after digging as is practicable, as the long rains, which sometimes visit us at this time, are liable to cause the banks to fall in.

Filling in the earth, may be very easily and expeditiously done, by passing a plough on each side, throwing the earth into it as it passes.

The Morus Multicaulis,

Or Chinese Mulberry.

I have observed in several different publications lately, that this highly valuable tree perishes under the hard frosts of our northern climate, particularly in New England, and also in Albany and Onondaga counties in this state. I have one standing in my door yard in Buffalo, where it is much exposed to our coldest winds and frosts, and never has it yet, although planted four years ago, lost an inch of its wood by frost or other accident. It is very beautiful as an ornamental tree, and although it is surrounded with perhaps fifty different kinds of ornamental trees and shrubs, it attracts special notice by its broad, delicate, and shining leaves. This tree of mine is grafted upon the common white mulberry, about nine inches above the ground. Do not those plants which are reared in the nurseries for cultivation, grow too thrifty, which causes them to have large quantities of unripened and spongy wood, that cannot withstand the frost? In my opinion, all unacclimated plants should rather be stinted than crowded in their early growth, and the young wood thoroughly ripened before the frost shuts in. I fear that the propagators of this beautiful tree have, in their eagerness to multiply it, so enriched their grounds that the young trees have actually overgrown themselves, and thus been exposed to premature destruction; whereas a different course of cultivation, in only ordinary sandy or loamy warm soils, would ensure a sufficient growth, and make them as hardy as any native tree of our country. ULMUS.

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We publish in connection with the above, the following note from *D. Stebbins*, Esq. the indefatigable and public spirited Secretary of the Hampshire and Hampden [Mass.] Agricultural Society, which came to us annexed to the leaf of the Morus multicaulis which it describes:

"This leaf is the product of seed imported from China, and planted in this town last year. The seedling was exposed to the open severe winter, and this spring taken up, reset, and has grown to a good sized tree.

1835. July 20, the leaf measured 8¼ inch. by 6 in.
" " 27, " " 9 " 6½ "
" Aug. 3, " " 10 " 7 "

On the 4th, 5th and 6th were light frosts, which checked the growth of the leaf, and the trees began rapidly to form wood, the very condition wanted before winter sets in. Had the weather continued favorable, it might have attained to 14 or 15 inches by the middle of September.—*Northampton, Sept.* 22, 1835."

In the *Northampton Courier* of the 23d September we find the following communication, which was furnished for that paper by the gentleman from whom we received the preceding note.

The following communication is from the Secretary of the H. and Hampden Agricultural Society, the gentleman who first procured from China the real Morus multicaulis seed. He has watched the growth and character of the plant with the nicest care:

It has become an interesting inquiry whether the Chinese mulberry can be cultivated with such probability of success, as to take the place of the common Italian white mulberry. While some are depending entirely upon the white mulberry for the food of silk worms, others earnestly contend for the exclusive use of the Morus multicaulis, and others recommend the use of both. It may not be unimportant to examine the subject, and let the cultivators determine for themselves. It is a fact well established, that the white mulberry, (morus alba,) is liable to have the stalk of the first year killed to the ground, while the root remains alive and sprouts the spring following; so it was with the Chinese mulberry raised from the seed last year, (1834,) although the stalk was killed, yet the root remained alive, and suffered no more than the common white mulberry, and in some cases not so much, as can be shown in several nurseries in this town, —another fact, the seed sown here last year was from about the same latitude in China, as the Italian white mulberry from Italy.

The Morus multicaulis, which was introduced into Europe by a botanist, and from Europe to America, being the product of only two plants, which originally came from the Phillippine Islands, probably from Manilla, situated in latitude fifteen north; being imported from a latitude so near the equator, it cannot be expected to withstand our winters in latitude forty-two, so well as if it had been originally from a higher latitude.

That the seed which was imported last year for the first time came from a high latitude, is evidenced by the plant's resisting the severity of the

last winter so well, even in exposed situations, and being so nearly acclimated in the seed, it may be expected that trees from such seed, will be as likely to bear our climate as the Italian white mulberry, both being from nearly the same latitude, yet from different quarters of the globe.

Plants from the seed of last year, which were exposed to the open winter, have this season grown to a good sized tree, and appear to form wood earlier and with more facility than the Morus multicaulis from Europe. The leaf is large and stout, affording a rich food for the silk worm, and if not preferable, may be considered equal in value to any other mulberry, and full confidence is entertained by the cultivators, that it will, after the first year from seed, layers or cuttings, withstand the severe winters as successfully as almost any other tree.

Our climate is peculiarly adapted to the culture of the mulberry, and the silk made in New England has as good a fiber, and a better luster, than any silk imported, and is worth more by the pound.

The silk of China raised in as high latitude as ours, is worth twenty per cent. more than Canton, which is about twenty-three north. s.

Seasonable Hints for October.

Most of the more important business of the farmer is now completed, if it has been seasonably attended to;—sowing wheat has been performed, corn has been cut, and what remains to be done is of a nature not to require such constant and immediate attention. But although most of the heavy operations are gone through, yet from the multiplicity of objects which will demand his attention, before winter closes his labors on the farm, it is still necessary for him to keep on the alert, remembering that whatever is accomplished *now*, will not require attention in future, when the season is cold and wet, and unfavorable for work in the open air.

Ground may be now very advantageously ploughed for spring crops, as teams are strong, and the weather cool; all soils will admit of this being done, even those which are light and sandy, for little injury can result from the exposition to the air, where evaporation must be exceedingly small when compared with that which takes place during the heat of summer. It is however in heavy and adhesive soils that the operation is eminently useful, as such soil will be well pulverized by the action of frost, and in an excellent state for sowing early in the spring without further ploughing; thus enabling the farmer to sow his first crops, days, and sometimes even weeks, earlier than could otherwise be the case.

We would recommend those farmers who have commenced raising crops of mangel wurtzel to test its efficacy as food for milch cows, in order that they may judge for themselves of its great advantages. As a further inducement, we here give an account of an experiment performed by the editor of the American Farmer and published two years ago in that work. He says, "In October, our best milch cow began to fail in her milk, and we cut an armful of the tops of the mangel wurtzel for her; this seemed to have a good effect, and it was repeated night and morning for a week, when she fully recovered her usual supply. The leaves were then withheld, and she immediately failed again in her milk. At that time her full quantity was about twelve quarts a day, and when the mangel wurtzel leaves were withheld, the quantity she gave was only about six quarts. She had good pasture, with an excellent stream of water in it, and plenty of salt during the time; but at that season the grass does not afford sufficient nutritive matter.

"After another week we began giving her the *roots* of the mangel wurtzel, cut small, and occasionally sprinkled with shorts or corn meal, and a little salt; one peck of the roots given thus had the same effect on her milk that the tops had; and we suspended these a week, to try their effect the more certainly. The result was as above stated, a conviction that mangel wurtzel is the best and most profitable root we can raise for milch cows."

In those countries where mangel wurtzel is extensively cultivated, the practice of cutting off the leaves for cattle is generally pursued, and is commenced even as early as the latter part of summer. After cutting, the leaves very soon grow out again, so as to admit of being cut every fortnight. Such frequent removal of the leaves must however, when performed so long before the maturity of the root, be at the expense of the crop; but when done later in the season, the advantages of so excellent food for cattle, would probably far more than counterbalance any injury it may then occasion.

When corn is husked, it should be put in long narrow cribs, so constructed as to admit of a free circulation of the air throughout. This will prevent the injury in the quality of the grain from mustiness which is so frequently caused where it is too much secluded from the air. Selecting corn for seed should claim the particular attention of the farmer. The largest ears, from the most productive stalks, are those which are in all cases to be preferred. A selection of this kind for several successive years has been found to improve the grain so much as to increase the product to a very considerable amount, besides adding to its quality. Those who wish to have full and even crops, should preserve four or five times the usual quantity for seed, so that it may be planted thickly, and afterwards thinned to the requisite distance. This is of great importance where there is a probability of the young plants being destroyed by insects; as the greater the number of plants, the greater will be the probability of a part escaping. Fields thus planted the present year have yielded in most cases full crops; while others which were planted with the usual limited quantity only, have frequently been more than half destroyed. Another advantage of this method is, that in thinning, the most thrifty plants may be suffered to remain, while others of inferior growth are removed.

Winter apples should be gathered as soon as the mature ones begin to fall from the trees; they should be carefully picked by the hand, and never shaken from the tree. If intended to be carried to market this fall, they may be packed in chaff or soft straw to prevent bruising. But it would doubtless in most instances be more profitable to keep apples till spring, on account of their high price at that time. The same apples that are sold in autumn for twenty-five cents often when kept till spring, bring seventy-five cents or a dollar per bushel; while the loss by rotting, when proper precautions are taken to preserve them, is but comparatively trifling. An excellent mode of preserving them is to pack them away in dry sand. The sand should be previously well dried in the sun. This mode prevents them from rotting one another by contact; the sand absorbs all unnecessary moisture from the fruit, and thus lessens the liability of rotting; and partially excludes the air. Well dried saw dust would probably be still better, provided it is prevented from absorbing moisture by being excluded from the air; but it should be of a kind of wood which will not injure the flavor of the apples.

Where this method cannot be adopted, a good way to keep them is to spread them in shallow bins, (say five or six inches in depth,) in a dry cool place, where the temperature should be kept as nearly as possible a little above freezing.

The following, according to Kenrick, is a mode of preserving apples almost universally adopted by the most experienced in the vicinity of Boston, where large quantities of fine winter fruit are cultivated and put up for use. By this mode, we are assured, apples under very favorable circumstances, are frequently preserved in a sound state, or *not one in fifty defective*, for a period of seven or eight months. "The fruit is suffered to hang on the tree to as late a period as possible in October, or till hard frosts have loosened the stalk, and they are in imminent danger of being blown down by high winds; such as have already fallen are carefully gathered and inspected, and the best put up for early winter winter use. They are carefully gathered from the tree by hand, and as carefully laid in baskets. New, tight, well seasoned flour barrels from the bakers, are usually preferred; the baskets being filled are cautiously lowered into the barrels and reversed. The barrels being quite filled are gently shaken, and the head is gently pressed down to its place and secured; It is observed that this pressure never causes them to rot *next the head*, and is necessary, as they are never allowed to rattle in removing. No soft straw or shavings are admitted at the ends; it causes mustiness and decay. They are next carefully placed in wagons and removed on the *bulge*, and laid in courses in a cool airy situation on the north side of buildings near the cellar, protected by a covering on the top, of boards, so placed as to defend them from the sun and rain, while the air is not excluded at the sides. A chill does not injure them, it is no disservice; but when extreme cold weather comes on, and they are in imminent danger of being frozen, whether by night or day, they are carefully rolled into a cool, airy, dry cellar, with openings on the north side, that the cold air may have free access; they are laid in tiers, and the cellar is in due time closed and rendered secure from frost. The barrels are never tumbled or placed on the head. If fruit is gathered *late*, and according to the above directions, repacking is unnecessary, it is even ruinous, and should on no account be practiced till the barrel is opened for use. It has been fully tried."

Propagating the Adam's Thread.

(*Yucca filamentosa.*)

An amateur just entering on the practice of Floriculture, soon discovers that some fine plants increase too fast for his convenience, while others are propagated with much difficulty. Most of the Orchideæ are in the latter condition; and generally it will include such as scarcely spread by the root, while our more ungenial climate prevents them from maturing seed. As instances of the latter case, we may name *Yucca flaccida* and Y.

filamentosa, from neither of which,—though both are very hardy,—have we ever obtained a ripe seed; and another plant, the *Agave virginica*,—delightful on account of its fragrance,—has invariably dropped every capsule before it matured.

Yucca flaccida indeed, is readily increased by offsets which do best when separated late in spring; that is, just as the plant begins to vegetate; though we have succeeded when we removed them in autumn; but the roots are a little disposed to rot when cut or broken at that season. *Yucca filamentosa* however, rarely produces a stolon; and it was therefore with some gratification that we made the following discovery:

A small plant of this species had been set in a raised border, which was not protected by *edging*, and in consequence the soil was gradually worn down by heavy rains. The stem of the plant was laid bare to the extent of nearly three inches; and though the leaves continued green, no new ones were produced in the present season. It was evidently on the decline. We had no doubt of the cause; and recently took it up for the purpose of transplanting it in a more favorable situation, when we found with surprise that the whole vigor of the plant was applied to three lateral shoots which were adjusted to the proper depth in the soil, and which may safely be separated next spring, and planted out.

The application of this principle will be easy to other plants of this kind that we may wish to increase, nothing more being necessary than (gradually?) to remove the earth from the stem?

Ornamental Plants.

We have been furnished with a list of Ornamental plants, which are offered for sale by a gentleman on whose grounds they have been cultivated and increased to such an extent that they will be sold at low prices. The list contains about one hundred kinds of Shrubs, Trees, and Perennial Plants, suitable for ornamenting lawns or door-yards—and above 150 varieties of perennial plants for borders, &c. and embraces most, if not all, the valuable varieties of hardy plants to be obtained at the nurseries, all *correctly* named. Gentlemen wishing to purchase, will be furnished with Catalogues on application at this office.

From the Edinburgh Quarterly Journal of Agriculture.

In order to explain the prejudices which obstruct the introduction of any thing new in husbandry, the following observations may not be inapplicable:

It was long after the days of Tull ere the drill husbandry came into general use. Upwards of a century elapsed after the introduction of the potatoe into Britain, before it was much raised even as a garden vegetable; and within the recollection of many, such were the prejudices of the Scottish peasantry, that by them *every distemper that prevailed was attributed to its deleterious influence.* Although cultivated as *a culinary vegetable* earlier than the potatoe, *the turnep husbandry*, now an indispensable part of our agricultural system, had not been long practiced; in most other parts of Europe it is little used, and in many situations unknown as a field plant. But a few years ago, *old meadow was considered most valuable;* and was preserved and handed down from one generation to another as an heir-loom; but this is now believed in most situations to be injudicious; and it is usual to break up and occasionally to bring such lands under a regular routine of crops. Draining must necessarily have been practiced at a very early period; but the immense utility of this was not generally known; nor was it extensively adapted with effect until within the last twenty years. Twenty years ago, over a great part of this country, where streams were stagnant, or the surface of the ground was in a constantly moist state, mildew and frost exceedingly injured the quality of the grain in the month of August, and prevented it from filling or ripening; but from more perfect draining, these evils are now little experienced. From this circumstance, Scottish grain is now equal in quality to that of England, although formerly very inferior.

From the Cultivator.

Cisterns.

Mr. Buel—In the June number of the Cultivator, was published a short article on the subject of cisterns, in reply, as declared, to a question of a correspondent. Your readers may perhaps be willing to take some farther hints upon the same subject, especially such as know the value of rain water, and would know the means of its perfect preservation. Although the method of building cisterns there suggested will, in many instances, be entirely successful, I propose to offer a reason or two, founded not only upon theory, but some experience and observation, to show that cisterns thus built are liable to fail of answering the desired end: and also, to give the outline of a new plan of constructing them, now fairly tested, that is calculated to avoid the defects of many kinds of cisterns differently constructed, and to lessen the expense of construction.

To build a brick cistern to contain about 40 barrels, the walls of which shall be laid in common lime mortar, with an inside face or plastering of water lime, the expense in this neighborhood would be as follows. That it may be of the above mentioned capacity, it must be built about six feet deep and six feet square—or contain 216 cubic feet. To construct the walls of such a cistern, the thickness of which shall be the length of one brick, are requisite about

3,500 bricks at $4,	$14 00
20 bush. of lime, at 2s	5 00
Two loads of sand and drawing at 3s.	75
One barrel water lime for facing at 10s.	1 25
Mechanic for building 4 days at 12s.	6 00
Tender for building 4 days at 6s.	3 00
Materials for covering and curb to draw water,	2 00
	$32 00

No calculation is here made for digging the pit, as this must vary with the soil and situation, and be nearly alike for all kinds of cisterns of the same capacity.

This is the cheapest way, perhaps, of making a brick cistern, the wall being the thinnest practicable; but it will be seen that cisterns having walls of double thickness, (which are frequently made, and are by some considered cheapest in the end,) would cost nearly double the above account, which expense is a great obstacle in the way of the general use of cisterns, in obtaining one of the greatest comforts, not to say luxuries of life, an abundance of pure rain water.

Objections to the utility of such a cistern are, that the common lime, unless the water lime facing be entirely impervious, will affect the water by creating *hardness*, as it is generally called, for a long time; and moreover it is difficult to make a cement of that material that will hold water, especially when united with brick or any substance that so readily conducts water.

And the bricks extending quite through the wall, as in case of the thinnest wall, I do not believe it could be made to hold water by any means without facing, there being so many crevices under the bricks, occasioned by the settling of the mortar from underneath them when the wall is constructing; then the dependence for holding water must be upon the water lime facing, and this is very uncertain, for a slight frost, and frequently a few months' standing and use will cause such a facing to cleave off from any other substance that may be plastered or faced by it; and this facing being necessarily so thin, it is often the case, that for one or another of these causes the cistern cannot be made to hold water. In the vicinity of this village there have been made many cisterns of stone and water lime in various methods, and this has been done for many years. But an improvement made by two respectable mechanics of this place, about two years since, has superceded every other plan attempted among us, and reduced the cost to a sum that any householder can afford, for the certainty of enjoying the common use of rain water. They have procured a patent for the improvement, but there is no secret in the operation of constructing their cisterns. A false curve is made of staves that fasten or link together in some way, and this is set up like a tub in the pit, which is dug in a well form, that is circular to the proper depth, and about one foot in diameter larger than the curve, and after placing the curve in the pit, the space between it and the bank or earth is filled with fragments of stones, cobbles, brick-bats, cinders, or almost any hard material crumbled into pieces of four inches or less diameter; a quantity of water lime is then mixed with sand in the usual proportions for making mortar, but of a consistency of gout or puddle, and the compound poured into the space. It runs through the whole to the bottom, and fills all the crevices and the entire vacuum left between the curve and the earth. When this becomes set, as they term the partial induration of the mortar, the curve is removed, and the wall while yet in a green or soft state, is faced or smoothed, and the bottom made with nearly the like materials. It is then covered and completed, and in a few days is fit to receive the water.

Now there is no quick lime used in the construction, which obviates one difficulty above mentioned, there is nothing to conduct the water through the wall to make it leak, no stone or other substance extending through it. It soon becomes hard as stone, and must endure, with proper care to guard against frost, (which will break rocks,) as long as time. Cheapness and utility are great desiderata of this age of improvement. This cistern is certainly equal if not superior to any other ever made for holding and preserving the purity of rain water; and one constructed six feet in diameter and the same depth, holding about 35 barrels, costs here 15 to $17. Besides, the builders warrant them to hold water; and all know who are acquainted with the nature of hydraulic cement, that when it once holds water for a short time, it is forever. Indeed, out of 200 cisterns and reservoirs that have been built upon the "pattern curve" plan, not one as I have heard has failed to hold water from the time of its completion hitherto.

The expense of this kind of cistern it must be perceived, is comparatively small, and that will of course vary according to the price of water lime where it is used—a cistern of the last named dimensions requiring about three barrels in all. They must be made with equal convenience of any shape or size, and the proportional expense is diminished in building large reservoirs. I have a cistern built upon the old plan, with a thick stone wall, of about 35 barrels capacity, that cost $40. I have another built upon the "pattern curve" plan of the same capacity, and most perfectly finished, that cost about $15. They are both good cisterns, and I do not hesitate to use the water, (when conducted into them clean,) for family purposes, cooking, &c. And I think I could give some good reasons, why it is better for such uses than spring water of this limy region. But this may perhaps be done hereafter.

Yours, A Friend to Improvement.

Note.—To know how much a cylindrical or circular cistern of given dimensions will hold, multiply one-half the diameter into one-half the circumference, and that product into the depth, or the square of the diameter into the decimal, 7854—which will give the number of cubic or solid feet. By statute, one cubic foot of distilled water weighs 62½ lbs., and ten pounds make a gallon, so that multiplying the number of cubic feet by 62½ and dividing by 10 will give the gallons.

Chittenango, Aug. 12, 1835.

COMMUNICATIONS.

Voracity of Fishes.

BY ULMUS.

In my leisure moments, and they are but few, I love to observe the habits and dispositions of all kinds of animals, and have oftentimes derived hours of amusement from what by too many would be deemed most dull and uninteresting subjects; by many even a bore. Though not a fisherman, either with the seine or hook, yet I take great interest in the different kinds of fishes that inhabit the Niagara.

Those that are acquainted with the great Lakes and the rivers that connect them, know that they are a collection of the purest and clearest waters in the world, and they are abundantly stored with a great variety of the finest fish, of various sizes, from the slightest minnow up to the sturgeon of 70 pounds weight.

I have sat in a boat for hours at different times, near the shores of the Niagara, and hung over its transparent waters, observing the various kinds of fishes, perhaps a dozen in number, comprising thousands in quantity, as they sported in the water and darted after their prey, each feeding on the other in turn. The minute minnow, swimming on the very top of the water, basking in the sun, and much in appearance like the smallest sized dress pins, caught the little specks and animaleulæ which floated on the surface. The larger kind, from 1½ to 2 inches long, sported a little depth below them, and would frequently dart up and devour the little unoffending ones at the surface. These in turn would carelessly float below their usual depth, or stray into deep water, and there be caught by the yellow perch or rock bass, a fish some five or six inches long, and greedy for a meal. While this last would occasionally be off their guard, and at a little distance, the yellow pike, a foot or eighteen inches in length, would slightly elevate his head from his watching place, and with a slight undulation of his tail, throw himself like a shot at the devoted perch, and swallow it in an instant. Even the yellow pike in his turn has to be eaten; and although it is seldom that the deep spots which they inhabit can be seen so as to observe all their movements, yet the muscalounge, a large, most active, and beautiful fish, the exact counterpart of the brook pickerel of New England, and the tiger of the Upper Lakes, preys alike on the pike and all fish smaller than itself. They are a most delicious table fish, and are caught in great plenty in the Niagara above the Falls.

One morning last summer, as I was setting with some friends on the river bank, looking out upon the waters from the window of my house on Grand Island, one fisherman, who had been out part of the night with his seine, rowed up his boat to the shore, and with the aid of his boy brought up a large basket of the finest muscalounge and spotted pickerel, a fish much like the other, but smaller, and beautifully spotted like the brook trout, and set them on the bank. They were extraordinary fish, and the fisherman in his pride held up a noble muscalounge some four feet long, and of more than 40 pounds weight, for our admiration. I observed the fish to be uncommonly large and bulky, and requested him to cut it open on the spot, for I suspected he was a huge feeder. He did so, and in his stomach a large mullett upwards of a foot long was found, perfect in its form, and to all appearance swallowed not an hour before. The muscalounge had a mouth full of sharp teeth, but the mullett was not at all injured in appearance. In the stomach of one of the spotted pickerel was a yellow pike half as large as itself, and in nearly all the fish, of which there was a large variety, were found fishes of various kinds.

But these fish, voracious as they were, were the prey of more voracious man, and a pair of mighty bald eagles, that had a nest in the top of a towering oak on a small neighboring island, occasionally bore away one of their number to their clamorous young. So are the wonderful purposes of nature supplied, and after all our observation and research, we can only gaze on and admire.

ULMUS.

New Product of Corn.

BY W. G.

Almost every person is aware that the kernel of maize, the common Indian corn of our country, contains oil, yet few, we imagine, have ever heard that it can be collected in such quantity as to become an important article of domestic economy and traffic. We have lately had an opportunity of examining and testing the qualities of this new kind of oil, and certainly find it in many respects a most superior article. What we have seen was made at Howell's distillery in the town of Tully, in the south part of this county, (Onondaga,) and has been principally used for lamps, though we have no doubt it will be found extensively useful, wherever the finer qualities of oil are required. We have not witnessed the mode of preparing it; but understand that the oil rises on the surface of the vats or tubs used for mashing, and is taken off previous to the distillation of the liquor. To procure the oil, it is necessary, we learn, that the corn should be alone used, as the addition of other kinds of grain, such as rye, &c. lessens the quantity, or destroys it altogether. About a pint and a half is the average yield from a bushel of corn meal, and as the loss of it does not in the least affect the quantity or apparently the quality of the whiskny produced, that amount of oil may be considered as clear gain to the operator, it selling quickly at 8 to 10 shillings per gallon. After being dipped from the surface of the vats, it is separated from all impurities by a careful rectification; and when thus prepared is of a rich amber color, tasting like the finest nut oil—burns with a pure brilliant flame, without smoke, or those disagreeable, not to say noxious exhalations, that render most kinds of lamp oil such a nuisance in a dwelling. In consumption, the corn oil is at least equal in durability to others; and during the cold season it remains fluid at a much lower temperature than the ordinary oils, which is a decided advantage. In speaking thus favorably of the new oil, we have no intention of advising our friends to build distilleries for the purpose of procuring it; but if those who persist in conducting these manufactories of drunkards, would save the oil produced in their operations, it might be bringing a small good out of an immense evil; certainly it would be the means of evolving light from the thick darkness which has settled over distilleries, from the just frown of public opinion.

W. G.

Temperance Societies in Harvest Fields.

To the Editor of the Genesee Farmer:

On conversing with my friend Mr. Bull lately, on the state of his crops, manner of harvesting, &c., he was pleased, he said, to tell me, that his crops, thanks to a bountiful Providence, were equal to most of his neighbors; and he has pretty good reason to believe his farm is *rather more productive than formerly*, owing, *probably*, to the care he takes in keeping his cattle *within the fold yard in winter*, and expending a few dollars in the purchase of manure, gathering decayed leaves from the bush, collecting the droppings in his pastures, and making composts for grass lands, cutting down thistles and weeds, &c., all which he respectfully recommends to those who wish to have good crops of hay and grain, to try, and he assures them the return will be *good interest* for money expended. The field which you may remember was prognosticated to be entirely ruined by his "*pains taking*," produced a most luxuriant crop of barley, which, with the previous one of turneps and corn, completely floored his *advisers*, and he believes he may now be allowed to pursue his "farming ways" in peace. Mr. B. informed me that since he took possession of his farm, he has never had his hay and grain cut and harvested so well nor so pleasantly, as this season. An angry word and an oath were not, to his belief, heard in the fields or barn. *He allowed no* LIQUOR, BEER OR CIDER, TO BE DRUNK IN THE FIELD!! Of laborers he *had plenty*, and all *worked well*, and were satisfied, at least no complaint was made to him. Those who wished were allowed a glass of whiskey at dinner or supper, but this this was asked for only a few times and *discontinued*. Milk and water, cider and water, and OATMEAL and water, were provided in abundance, together with *five meals a day!* amply compensated for the want of spirituous liquors; and he declares his determination to persevere in continuing his "*Temperance Society*" in his *harvest fields* in future, which he most earnestly recommends to all those who have not tried "the experiment," as a most safe and beneficial plan of avoiding those disgraceful scenes of drunkenness, insubordination, and even murder, (or according to the verdict of a Niagara Jury, *manslaughter!*) which have occurred to his knowledge since his settlement in the province. A remark made by a "highly temperate Society lady," tickled my old friend amazingly,—that she had observed in her long journeys through the country, that the grain of all the members of the Temperate Society had been housed before the rain!! But this he tells me, ASIDE, is *not exactly true*, and only a weak invention of the enemy, as he himself is not *a member*, albeit many attempts have been made to induce the old gentleman to give up his cheerful glass when a friend calls in, but hitherto without effect, Mr. Bull declaring he is an *exceedingly temperate man*, but like the rest of his countrymen, will have his way! As my friend is becoming exceedingly indolent, and rather corpulent—*cause and effect, perhaps*—he desires me to offer these hints to your acquaintance, with many wishes for your success in obtaining an addi-

tional number of subscribers to your very useful periodical. Remaining yours respectfully,

Niagara, U. C. Sept. 23, 1835. AGRICOLA.

From the Silk Culturist.

Sowing Mulberry Seed.

The following "directions for sowing the seed and raising the plants of the White Mulberry Tree," are given by Mr. Robert Sinclair, Jr., one of the proprietors of the Farmer and Gardener, a valuable agricultural paper published at Baltimore. They will be found useful to those who are commencing operations. The compost he proposes for manuring the seed beds, is doubtless a good one, and well adapted to the growth of the plants; but we do not consider it indispensible. All that is necessary is to manure the land well, sow good seed, water the plants should the season be dry, and keep them free of weeds by the frequent use of the hoe, and we will warrant a good growth without charging any premium. We regret to see any of our brethren talking about degrees of temperature, and proportions of compost, as peculiarly applicable and indispensable to the hatching of worms and raising mulberry trees. It only serves to mystify the subject and discourage farmers from embarking in a business every way simple and practical.

1. To sow an ounce of seed, prepare a bed 50 feet long and 4 feet broad. Manure it *well* with a compost composed of one-third stable manure, one-third ashes, and one-third decomposed leaves from the woods, or garden mold; dig *deep*, pulverize finely, and then lay the bed off in drills 12 inches apart, and one-fourth or one half of an inch deep; sow the seed as thick as you would onions or parsneps; cover with rich mold, press the mold down gently, but sufficiently to cause the seed to come into contact with the earth; and should the weather be dry, water the seed bed every other evening; it will assist in promoting the germination of the seed and vigorous growth of the plant.

2. Keep the beds clean of weeds; and should they receive an occasional watering with suds or soot and water, say once a week after they are up, if planted this month, August, they will be fit to transplant into nursery rows in April next, or if not desirable to be so removed, they may be permitted to remain until the ensuing spring, care being taken to keep the beds clean of weeds, the earth stirred and watered in dry seasons.

3. The second year, if not removed before, the plants must be removed into the nursery rows, which must be prepared as for any other crop. The ragged roots being taken off and the tap root shortened, the plants must be planted out 12 inches apart in rows three feet apart, the earth to be well trodden around the plant. As before, the earth must be kept open and free from weeds.

4. At two years old, the plants may be planted out into hedges, at 18 inches apart, in rows six feet wide. The ground should be prepared as before directed, and some good rich mold put into the holes, to be pressed around the plant. If intended to be planted out as standard trees, 20 feet square apart would be a good distance, but in that case the plants should not be transplanted until they are about an inch in diameter. In either case they will require trimming and topping, and if kept as hedges should be treated as other hedges are.

AN IMPROVED MODE OF GREASING WHEEL CARRIAGES.—Mix with the ordinary grease used for carriage wheels, as much black lead carefully pounded and sifted as will bring it to the consistency of any thick soft pomatum, and grease with this.

It will endure twice as long as the grease which is commonly applied; or if the rotation is not a very quick one, three times as long.

The mixture is equally applicable to machines used in agriculture, as mills, &c. It has no bad effect whatever in wearing the axle or box.

The effect is still further increased if the axle is iron and the box brass.—*Sinclair's System of Scotch Husbandry.*

From the New England Farmer.

Selection of Seeds

PREVENT THE DEGENERACY OF VEGETABLE PRODUCTIONS.

MR EDITOR—An opinion prevails to some extent among some of my acquaintance, that *all* kinds of agricultural and horticultural seeds are apt to degenerate if they continue to grow from the same original stalk in any one neighborhood; and that in order to secure good crops of corn, potatoes, and other valuable products of the field and garden, it is necessary to obtain seed which grew at a great distance, from the place where the seed is to be planted. Some of these persons suppose that if farmer A. living in C., exchanges his seeds with farmer B. living in D., at the distance of one hundred miles from each other, that the exchange will always be mutually beneficial, and will ensure an *increase* of crops to both.

I could relate to you a number of experiments which demonstrate the fallacy of such a doctrine.

A few years ago I planted Turnep seed, which was obtained by selecting the best roots from a very fine crop of turneps, and growing seed from *them*. The seed from these selected turnips was planted within a few rods of the place where the seed, and the turneps which made the seed, had grown, and this seed produced a fine crop. But not having seed enough, I procured some turnep seed from abroad, and planted it in the same manner by the side of the other. When the crop was matured, it was seen that the seed which was obtained from a distance, produced a crop not more than one fourth part as large as that which was grown near the spot where it was planted, and while the latter was remarkably smooth, fair, handsome, and excellent in quality, the crop produced from seed obtained at a distance was rough, and poorer in quality, in about the same proportion that it was smaller in quantity.

About the same time, I made a similar experiment with *carrot* seeds, and the result was very similar to the experiment with turnips which I have just related.

But as *potatoes* are thought by some to be peculiarly apt to degenerate, and as it is not easy for every man to make experiments which require more than thirty years for their completion, I send you the following, which you are at liberty to give to the public, through the medium of your useful paper, if you think the narration worth publishing.

When I was a lad 16 years of age, my father obtained a kind of round yellowish potatoes, which was new in the neighborhood, and was thought at that time to be a superior kind. He planted them, and was much pleased with the result.—He had a larger crop than he had ever obtained before, on the same quantity of ground since my remembrance. He continued to cultivate the same kind of potatoes, for more than 20 years, on the same farm, and they still retained their excellence.

After I became the head of a family, and after my father had cultivated the kind of potatoes of which I am writing, for about fourteen years, I obtained seed from him, and have continued the cultivation of them for sixteen years more; from the same original stock, which my father obtained, when I was sixteen years old.

Thus it will be seen, that the 16 years which I have cultivated them, added to the 14 years which *my father* cultivated them, before I obtained the seed from *him*, make a period of 30 years, which *we* have continued the cultivation of the same kind of potatoes, from the same original stock.

I have ever been careful, to select the *best* part of my crop for seed, and so far from degenerating or *running out* as it is termed, some of my last crops have been *handsomer* and *better*, than I have ever seen of the kind before.

Respectfully yours, ASA M. HOLT.

East Haddam, Conn. Aug. 7, 1835.

By the Editor.—The above is from a very respectable medical gentleman from whom future favors of a similar nature are respectfully solicited. We have frequently endeavored to impress on our readers the importance of selecting the best seeds, roots, &c., for the purpose of raising new crops of the same sorts of vegetables; and given the opinion of practical as well as scientific cultivators that it is, generally, better to propagate from the best which a farmer himself proved and improved than to make hap-hazard exchanges with his brethren at a distance. The rule is, or should be to raise the best you can, and propagate from the best you raise. See New England Farmer, vol. xiii. pp. 30, 62, 334. But examples are better than precepts, and those of Dr. Holt are very pertinent and instructive.—*New England Farmer.*

The Fair held by the Hamilton County Agricultural Society, on the third, fourth and fifth, fully equaled our anticipations. The fine stock, agricultural and horticultural productions, with numerous splendid specimens of mechanical skill; the presence of so many distinguished agriculturists of our own and the adjoining states of Kentucky and Indiana; the great concourse of ladies, of farmers, mechanics, and other citizens, assembled in a beautiful grove, seeking and finding enjoyment in the encouragement of a desire to improve, was a scene of truly exciting interest, and it is with pleasure we add, that, notwithstanding the multitude of people of all sexes and ages, the number and variety of animals, and numerous carriages within the enclosures, no accident occurred to mar the happiness that all appeared to enjoy. We expect to be able to give the details in an extra, which the society have instructed us to publish. They would have been inserted in this number could the several secretaries have prepared their reports in season, but that is a labor that requires time. We hope, however, to receive them in a few days.—*Farmer and Mechanic.*

AMERICAN SILK GROWER'S GUIDE.—We have just received a small, but we believe highly valuable Treatise, with the above title, by WILLIAM KENRICK, Esq. of Newton, Mass., author of that excellent and well known work, entitled *New American Orchardist.* We have not had time to peruse the *Silk Grower's Guide*, but from a cursory glance at its contents have formed a high opinion of its merits; and think it ought to be in the possession of every person who is concerned, or wishes to take an interest in a manufacture which promises to be of paramount importance to the country, as well as a source of emolument to those who with skill, ardor and perseverance, devote the requisite time and attention to its pursuits.—*N. E. Farmer.*

From the Farmer and Gardener.

Treatment of Milch Cows.

There is, perhaps, no part of the husbandry of our country so much neglected as that which relates to the providing of provender for the milch cows on our farms. On many estates, even those of magnitude, the chief part of the feed, if not the entire, which they get are the blades, the tops and the husks of the corn, with an occasional gratuity of nubbins by way of a holiday feast. The consequence is, that if the winter be severe and protracted, there is nine chances out of ten, that every cow, long before spring arrives, is either dry, or so near it, that the milk she will give is not worth the trouble and cost of *stripping*, so that many farmers with half a dozen or more cows have neither milk nor butter sufficient for the domestic uses of their tables, during the latter part of each winter; and by the time that the cold and bleak winds of March arrive, many of the cows are on the *lift*. How is it possible that it can be otherwise? There is little or no succulence in the food we have described in its dry state, and consequently cows fed upon it must, for the want of matter convertible into milk, cease to yield it. In every other country save our own, it forms a part of the business of every farmer or planter, to provide full supplies of nutricious food for his stock of every kind, and for those which comprise his dairy cows, especial pains and care are taken to provide a suffi-

cient quantity of such roots as are heartening and succulent, so that, by thus providing a substitute for the grasses of the pastures, or the soiling stalls or yards, his dairy, even through the dreary and inclement period of the winter, may continue to contribute largely to the comfort of his family, and to the increase of his fortune. No good farmer there, will keep more cows than he can *keep well*, and in so keeping them, he finds his interest rewarded, and has besides the satisfaction of knowing, that in thus acting he has fulfilled an obligation imposed upon him by every humane consideration, and discharged a duty required by Him, who, in placing the beasts of the field in subjection to man, enjoined that he should extend towards them his kindest protection and care. We frequently hear gentlemen complaining of the difficulty of procuring such cows as will make profitable returns, and of the impossibility of keeping them to their milk during winter. The reason is obvious. No cow, and we care not what her breed may be, whether she be of the improved *Durham Short Horn*, the *Devon*, the *Alderney*, the common cow of the country, or any other kind—we say no cow can be kept to the milk pail unless you give her something which will both nourish her system and replenish her udder. To make a cow yield a liberal supply of milk through the winter, she should have, in addition to full supplies of good wholesome hay or fodder, at least half a bushel of roots of some kind, or an equivalent of cabbages or kale per day. And if the hay should be fed *long*, each cow should have at least two days in the week, messes of chopped rye and cut straw, to be either steamed or mixed up with boiling water, and permitted to remain until it be fermented before feeding. What, we would ask, would be the appearance of those splendid improved *Short Horn Durhams*, of Col. *Powell* of Philadelphia, of General *Van Rensselaer* of Albany, of Mr. *Hall* and Dr. *Hosack* of New York, of Mr. *Thompson* of Frederick county, Maryland, or of Mr. *Canby* of Delaware, if they were fed through the winter upon the ordinary feed which is doled out to the cattle of a majority of the farmers of our country? Why, the month of March would find them with scarcely strength to carry their noble frames, if it did not find them in a state to render it absolutely necessary, in order to maintain an erect position, to seek the aid of some convenient fence corner. The ambition of procuring fine breeds of animals of all kinds, is one worthy of every praise; but *that of taking good care* of what we have, is equally, if not more laudable. Besides these considerations, the interest of every farmer is always promoted by feeding his cows well. If fed in the niggard manner we have described, their keeping, such as it is, is a dead loss to their owners, they make no manure worth speaking about, and the animals themselves are comparatively valueless: and if kept *generously* through the winter, and sheltered from the weather, each cow will give her two gallons of milk per day, and make from four to seven pounds of butter per week, which latter should be set down as the profit, as the milk and cream consumed by the family, will more than compensate for the feed. In addition to this, animals thus fed make three times the quantity of manure, and are always in a condition to command good prices. We have indulged in no speculative theories in what we have said, but have addressed ourself to the common sense of the agricultural community, in the hope that they will see the propriety of adopting some plan by which our object can be attained.

From the Code of Agriculture of the 5th Edition, 1832.

On the means of Preventing the ravages of 1. slugs; 2. grubs; 3. the wire-worm; and 4. the wheat fly, (or tipula tritici,) on our crops of wheat.

Among the various difficulties with which a farmer has to contend in raising his crops, the ravages committed by a variety of the more diminutive tribes of animals, are much more important, and carried to a far greater extent, than is generally apprehended. These vermin are of several sorts; but the principal are, 1. Slugs;—2. Grubs, or large maggots;—3. The wire-worm;—and 4. The wheat-fly. The three former devour the plant when young; the latter attack the ear when it is coming to maturity.*

It is proposed to give a short account of the various measures hitherto adopted, for preventing the injuries to which our crops of wheat are liable from these destructive animals, accompanied by any recent suggestions for that purpose.

1. *Slugs.*—These are properly "naked snails." They abound in spring, but only appear early in the morning, and late in the evening, more especially when the weather is warm. In the day time they destroy the roots, and in the night the blades, and other parts of the young wheat which they find above ground. They deposit their eggs above the earth. Powdered salt, saltpeter, and quick-lime, are destructive to slugs; but lime-water is the most effectual, the least drop of it killing them. For that purpose, some diligent farmers collect by means of pea-baulm, under which they shelter themselves, and they are then destroyed by a watering pot, by means of which lime-water is sprinkled over them, when the haulm is removed. Sulphuric acid, even diluted, would probably answer the same purpose. Rolling the ground at night, or treading the surface with sheep, &c. are useful practices for the destruction of this species of vermin.

2. *Grubs.*—These are worms or maggots produced from the eggs of beetles, which ultimately are transformed into winged insects of the same species as their parent. They are likewise called "the rook worm," rooks being so fond of them. They do great injury to the crops of grain by undermining and feeding upon the roots of the plants. They are hardy in their egg state, and, when grubs, are invulnerable to the weather; but when passing from the aurelia state, rain and cold weather will destroy them. This maggot is so destructive, that if every season were equally favorable to its production, it would soon render the world a desert.

Various remedies have been recommended for destroying them, in particular, sowing salt with the seed—strewing barley chaff on the surface, so as to entangle and destroy them—spr ading quicklime or saltpeter over the field, before the plants get up—employing ducks to devour them—rolling the earth, more especially during the night, when the grubs are generally on the surface—and treading the surface with sheep or pigs, and sometimes even with horses.

3. *The Wire-worm.*—This is a noxious animal, abounding both in old grass-lands and in clover lays. It is very difficult to destroy them, as they are peculiarly tenacious of life. For five years the wire-worm remains inhabiting the earth, till it changes its nature, and becomes a winged fly, (the Elator segetis of Linnæus.†) Some recommend, as the surest and most effectual means to get rid of them in old grass lands, to pare and burn the surface. Others suggest the sowing of spring instead of winter wheat, on the idea that the culture, at that season of the year, would destroy them. A plan has recently been suggested by Mr. Radcliffe, an intelligent clergyman in Ireland, of paring the surface of old leys—accumulating it in great heaps in the fields, and planting the field, and even the heaps, with potatoes. By this means, a valuable crop is raised—the destruction of the wire-worm is insured—and an immense quantity of valuable earth, full of rich substances, is obtained. Another effectual mode of destroying the wire-worm is to plough the clover stubble in July, as soon as the crop of hay is taken off, or the land has been cut for soiling, and then to sow it with cole seed, on one furrow, to be eaten down by sheep. The treading of the sheep will effectually destroy the worm, and the wheat may be sown with safety in November. But the simplest mode of destroying wire-worms is to delay ploughing till December; for if the land is then ploughed, they would be exposed, in a torpid state, to the frost, and the inclemency of the season.

That the reader may be induced to pay more attention to this branch of the inquiry, it may be proper to state, that according to the most accurate calculation that has hitherto been made on the subject, no less a quantity than 60,000 acres of wheat *in England alone*, are annually, either greatly affected, or completely destroyed, by this noxious animal.*

4. *The Wheat Fly.*—But of all the injuries to which wheat is liable, perhaps there is none more to be dreaded, or which is likely to be more severely felt, than that which is occasioned by a species of the fly, whose depredations have been felt in other countries, as France, and America, as well as Great Britain.†

1. *France.*—The depredations of insects in the district called the *Angumois* in France, are well known. They began their ravages in one peculiar canton. They successively spread through the whole of that district, and afterwards penetrated into the neighboring provinces, particularly those which had any settled intercourse in corn with the Angoumois. Grains that have appeared quite perfect, have each contained one caterpillar. This is soon transformed into a butterfly, which becomes the stock of an innumerable line of caterpillars. It is thus that so deplorable a calamity spreads so quickly. But it requires a combination of several causes, (which fortunately does not happen very frequently,) to favor the increase of these little animals, otherwise they would soon overrun any kingdom, and destroy the food of its inhabitants.‡

2. *America.*—The celebrated Hessian fly in America, is another instance of the destructive effects of insects. It got the name of *The Hessian Fly*, because it was supposed to have been brought over in the straw-beds and baggage of the Hessian troops employed in the American war, who were first landed, an. 1776, in Staten Island and the west end of Long Island. It was there where the insect first made its appearance, and thence it spread into the southern district of New-York, part of Connecticut, and Jersey. In the countries which it ravaged, the destructive powers of this insect are represented as in the highest degree alarming. In some districts, it is said to have so entirely cut off the produce, "that able farmers had not got at harvest a sufficient quantity of wheat for domestic uses, and, indeed, that they sometimes failed to reap the amount of seed they had sown."‖ During the period that the Hessian fly was so celebrated for the mischief it occasioned, the government of this country prevented the introduction of wheat from America. Such precautions are not useless. The Egyptian bean has an insect in it *of considerable* magnitude, which completely devours the kernel of the bean before it becomes visible. This species of bean has been raised in some parts of England, and the same insect is produced. Some means should be adopted to prevent the dissemination of so pernicious a production, otherwise the public will sustain a very considerable injury, which by wise precautions may be prevented. Any risk of this mischief spreading might have been prevented, had

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* Fields of wheat sometimes appear blighted early in the spring, by a small insect of the grub or caterpillar kind, lodged in the center, or very heart of the stem, just above the root, but the plants afterwards recover and shoot afresh. The insect is called the *musca pumilionis* by Linnæus, from its effects on rye, on which it chiefly feeds in Sweden, rendering the plants it attacks dwarfs. Annals of Agriculture, vol. xvi. p. 170; Trans. Linn. Soc. vol. ii. p. 76.

† See Trans. of the Linnæan Society, vol. ix. p. 160.

* See Trans. of the Linnæan Society, vol. ix. p. 158.

† A valuable paper on the wire-worm, will be found in the Stockholm Transactions for the year 1777.

‡ M. de Hamel du Monceau has written a work, entitled, "Histoire d'un Insecte qui devore les grains de l'Angoumois, avec les moyens que l'on peut employer pour le detruire." Paris, 1762, 514 pages in 12 mo. This work details the advantages of all the methods hitherto proposed, for preventing the ravages of weevils, moths, and every other species of vermin that attack corn.

‖ See Malcolm's Survey of Surry, vol. ii. p. 258, on the authority of Dr. Mitchell of America.

a public institution existed, to warn the farmer of his danger from its dessemination.

In the years 1787 and 1788, the greater part of the southern provinces of America, were infested with another insect, called there the "*Flying Weevil*," which, when full grown, is a minute moth, somewhat resembling that which breeds in and destroys woolen clothes. This insect is unfortunately well known in Europe as well as in America. In fact, it seems to be the same insect that is called "The Wheat Fly" in this country, and which has recently been so destructive in several districts.

3. *Great Britain.*—This mischief done by the wheat-fly in various parts of the kingdom, in the course of the year 1829, and the two preceding years, is frightful to contemplate. In one district in Scotland, (the Carse of Gowrie, in Perthshire,) the destruction it occasioned was estimated at little short of forty thousand pounds.* In many cases, the crop was not worth the cutting down; and in other instances a fourth, a third, or even a half of the produce was destroyed. The myriads of this vermin, and the facility with which they fly from one field to another, in search of the plants in which their eggs can be safely and efficaciously deposited, seem to place their depredations beyond the power of man to control; and hence it has been asserted, that the only means of avoiding the mischief is, either to give up the culture of wheat until the race is destroyed, by the want of the plants necessary for continuing the species, or by patiently waiting, until seasons destructive to them naturally occur. If Providence however, has created so destructive an insect, as the *tripula tritici*, or wheat-fly, it has been no less attentive, to prevent its becoming too numerous, by making it the food of other insects. Indeed, there are no less than three *ichneumons* † who seem to be intrusted with the important office of restraining, within due limits, the numbers of this destructive species, otherwise it would become too numerous to be subdued. The most extraordinary circumstance is, that one species of these ichneumons lays an egg near the egg of the fly. They are hatched at the same time; and it is ascertained, that the maggot from the egg of the ichneumon, either lays its egg in the body of the caterpillar, when it can get at it, or devours the maggot, and thus preserves the wheat from its attacks.‡

It is not here proposed, to enter into any philosophical discussion regarding the origin of the wheat-fly. It is sufficient to remark, that in the spring, and in the beginning of the summer, a species of fly is frequently found in great numbers, which attaches itself to the heads of wheat, when the ear begins to appear, and where it deposites its eggs, which in about ten days after they are placed in the ears, become maggots or caterpillars. These destroy the young pickle, by sucking up the milky juice which swells the grain, and thus, depriving it of part and in some cases perhaps the whole of its moisture, cause it to shrink up, and so to become, what in the western parts of England is called *pungled*.§ In about three weeks after, when it has exhausted this substance, it drops upon the ground, where it shelters itself at the depth of about half an inch from the surface. There it remains in a dormant state, until the mean temperature is about 50°, when vivified by the warmth of spring, it becomes a fly, about the time that the wheat produces the ear.

It is evident, that the same plan, that in our climate has been found so effectual for destroying the wire-worm, would be equally destructive to the wheat-fly, namely, that of leaving the soil which has produced the wheat untouched till November, and then exposing it to the inclemency of the weather, and in particular to the action of frost.

The great difficulty attending this plan is, to devise an advantageous course of crops, consistent with the idea of putting off the ploughing of the wheat stubble till November or spring. In the celebrated four years' rotation, 1. Turneps, 2. Barley, 3. Clover, 4. Wheat, the wheat stubble, as a preparation for the turnep crop, might first be ploughed shallow, and then a deeper furrow taken by which the fly would be buried,* scarifying and ploughing at the same time, and ploughing shallow in spring.

I scarcely think it possible, that the fly can be destroyed, if the wheat is succeeded by clover, unless, perhaps, by severe rolling and treading.† The minuteness of the caterpillar, which is no bigger than the ordinary roman letter C, will preserve it in a great measure from the effects of pressure.

It is a great advantage attending any plan for the general destruction of this vermin, that the young embryos are in general deposited in the fields "where the wheat grew."‡ Under a proper system, therefore, the race in a great measure be extirpated in any particular district. It is absolutely necessary however, that there should be a general combination for that purpose. Nothing done in the field where the new wheat is sown, can be of any use, for the fly is produced in fields, not under wheat at the time, and flies about, until it finds a plant suitable for its purpose.

In seasons, when the frost may not be supposed sufficiently violent, the desirable object may be obtained, by frequently stirring the ground, and by rolling and treading it, or burning stubble upon the surface, or by the use of hot-lime. Fumigations of tobacco or sulphur, made when the wind is favorable, might also render the ear disagreeable to this insect.§

If other means are ineffectual, surrounding the field of wheat with a belt of hemp, the smell of which is so peculiarly noxious to insects, might be tried.* The smoke of burnt weeds, and in particular of *sea weeds*, might also be of use.

In the course of these inquiries, I have seen very strong assertions, made of the beneficial effects of *elder*, in protecting growing plants from the attacks of insects; in proof of which it is said, that when a whole district was infested with cock-chafers, and scarcely a green leaf was untouched, the elder alone remained uninjured. This plant is said, 1. To preserve cabbages from being injured by caterpillars; 2. To prevent blights and other effects on fruit and other trees; 3. To protect crops of wheat from destructive insects; and, 4. To prevent the destruction of turneps, by the fly, if elder bushes are drawn, for that purpose, along turnep drills.

It is recommended to beat the cabbages with twigs of elder, or to make a strong infusion of elder water, and sprinkle it over the plants with a watering pot.

It has been remarked, that the greatest mischief is usually done to the late sown wheats, and that such as are sown early, receive little or no injury. When the grain has arrived at a certain degree of hardness and consistency, (which may be the case, with the early sown wheats, before the insect has made any material progress, or even commenced its operations,) the plant is not so liable to be injured.

Conclusion.

It is much to be lamented, that so important an object as the means of preventing the destruction of our most valuable crops of grain, should not have attracted the attention of government; by whose means, discoveries might be made, which can never be expected from private exertions. By public encouragement, the inquiry would be carried on with energy, and probed to the bottom; and the most effectual means of preventing the mischief would probably be ascertained. What subject can be compared to it in point of importance? At present, we are liable every year, not only to the loss of some millions worth of grain, but to all the mischiefs of scarcity, and even of famine. These would not probably be experienced in this country, were the ravages of insects, and the destruction by the mildew† prevented; objects which are certainly in a great measure attainable, if the inquiries regarding them were prosecuted with vigor, and if no expense were spared in collecting facts, and ascertaining, by careful experiments; the means by which such frightful losses might be prevented.

* Mr. Gorrie, an eminent gardener in the Carse, calculates it at £36,000.

† Trans. of the Linnæan Society, vol. v. p. 102, where they are described by Mr. Kerby.

‡ See this interesting fact explained in the Quarterly Journal of Agriculture, published by the Highland Society, No. 5, p. 301.

§ See Transactions of the Linnæan Society, vol. iii. p. 302.

* This is a plan recommended by Mr. Gorrie in the Carse of Gowrie.

† An instrument, at the same time, might be invented, similar in principle to the machine used at bleachfields for beating linen, which would probably destroy the maggots of the wheat-fly in the young clover by compression.

‡ Mr. Sherriff has ascertained, that embryos are likewise deposited in the *triticum repens*, or couch grass, which delights to grow in hedges, and other neglected situations; but these could easily be extirpated.

§ Transactions of the Linnæan Society, vol. v. p. 105.

* It may be proper here to mention a curious fact recorded in the Survey of the Hebrides. A cottager there, had his cabbages much injured by the caterpillar. He surrounded his little garden *with hemp*, and was no more molested by them, the smell of that plant being noxious to insects. The same idea exists in France, as appears from the following paragraph: "Quelques personnes ont cru reconnaitre, qu'en semant du chanvre sur toutes les bordures d'un terrain, les chenilles n'ont point depasse cette barriere, quoiqu'elles infestassent tout le voisinage." *Code of Agriculture*, 4th edit. p. 523, note.

† The writer of this paper, from his zeal to promote the improvement of British Agriculture, was led personally to examine the husbandry of the Netherlands. He there found, that "*The Rust*" or mildew, which frequently occasions such devastation to the crops of wheat in England, was scarcely known. He prevailed on the Board of Agriculture, to offer premiums for the best accounts of Flemish husbandry. and regarding that point in particular, several valuable papers were sent over, but unfortunately, about the time they arrived; government had resolved to abolish the Board, and actually sent all the papers belonging to that institution, (and these most valuable documents among the rest,) *to the Tower of London*, where they still remain, carefully locked up, as if information that might prevent the miseries of scarcity or famine was unfit to be promulgated, and should be carefully concealed from the public eye.

☞ List of Payments unavoidably deferred till next week.

A Valuable Farm for Sale.

ON the Ridge Road, south side, three miles west of Sandy Creek, and within two miles of the Erie canal, in the town of Murray, Orleans county, containing 248 acres, upwards of 130 highly cultivated—buildings large and convenient. This is desirable property, being situated on the best road in this state,—the soil varied, and every variety of the very richest quality. The situation, too, is delightful. Price moderate—terms easy. Inquire on the premises of W. B. ILES.

july 11-frtf aug 29

Election Notice.

SHERIF'S OFFICE, Monroe co., }
Rochester, August 12, 1835. }

A GENERAL ELECTION is to be held in the county of Monroe on the second, third and fourth days of November next. at which will be chosen the officers mentioned in the notice from the Secretary of State, of which a copy is annexed.

ELIAS POND, Sherif.

STATE OF NEW YORK, }
Secretary's Office. } Albany, August 1, 1835.

Sir—I hereby give you notice, that at the next general election in this state, to be held on the 2d, 3d and 4th days of November next, a Senator is to be chosen in the eighth senate district, in the place o Chauncey J. Fox, whose term of service will expire on the last day of December next.

Notice is also given, that at the said election the following proposed amendments to the constitution of this state will be submitted to the people viz:

For restoring the duties on goods sold at auction, and the duties on salt to the general fund.

JOHN A. DIX, Secretary of State.

To the Sherif of the county of Monroe.

N. B. The Inspectors of Election in the several towns in your county wil give notice of the election of Members of Assembly and for filling any vacancies in county offices which, may exist. aug 15

What a Farmer Wants.

The Farmer wants a stable mind,
A purpose sure and steady,
To patient industry inclined—
For business always ready.

Good careful habits, well infixed,
And judgment acting clearly,
To sift out truths with error mixed,
Though it should cost him dearly.

He wants a neat and prudent wife,
Who when he earns can save it,
Who kindly soothes the cares of life,
(Best gift of him who gave it.)

He wants a snug and tidy farm,
And health and strength together,
A house and barn to keep all warm
In cold or rainy weather.

Heaven's blessings then must crown the whole,
Or all his hopes are blasted,
But with *this* resting on his soul,
The purest joys are tasted.

He then enjoys a bliss unknown
To those the world calls greatest;
Known only to the good alone,
The earliest and the latest.

Miscellanies.

Rural Taste.—Addison, in one of the papers of the *Spectator*, thus speaks of rural taste:—

"I regard the man who surrounds his dwelling with objects of rural taste, or even plants a shade tree by the road-side, as a public benefactor; not merely because he adds something to the general beauty of the country, and to the pleasure of those who travel through it, but, because also, he contributes something to the refinement of the general mind;—he improves the taste specially of his own family and neighborhood. There is a power in scenes of rural beauty, to affect our social and moral feelings. A fondness of these scenes is seldom found with coarseness of sentiment and rudeness of manners. One may judge with confidence, of the taste and intelligence of a family by the external air of their dwelling. In my excursions in the country, if I pass a habitation, however spacious, standing naked to the sun, with nothing ornamental, nothing inviting, around it, I cannot help saying to myself, however abundant may be the slovenly possessions of the owner, there is no refinement in the house; there is no delicate and kindly interchange of sentiment among its inmates, and if ever they are sociable, their sociableness consists in rude and filthy loquacity. Their books are few, and those ill chosen and unread. But if I notice a dwelling, however humble, which is apparently as snug as its owner has means to make it, displaying neatness and taste in its fences, and shades and shrubbery, and flower-pots at the windows—I feel assured that this is the abode of refinement; this is the home of quiet and rational enjoyment, of intelligent and kindly intercourse."

The First Saw Mill.—The old practice of making boards was to split up the logs with wedges! and inconvenient as the practice was, it was no easy thing to persuade the world that it could be done in any better way. Saw mills were first used in Europe in the 15th century; but so lately as 1555 an English Ambassador, having seen a saw mill in France, thought it a novelty which deserved a particular description. It is amusing to see how the aversion to labor-saving machinery has always agitated England. The first saw mill was established by a Dutchman, in 1663, but the public outcry against the new-fangled machine was so violent, that the proprietor was forced to decamp with more expedition than ever did a Dutchman before. The *evil* was thus kept out of England for several years, or rather generations; but in 1728, an unlucky timber merchant, hoping that after so long a time the public would be less watchful to its own interest, made a rash attempt to construct another mill.—The guardians of the public welfare, however, were on the alert, and a conscientious mob at once collected and pulled the mill to pieces.—Such patriotic spirit could not always last, and though we have nowhere seen the fact distinctly stated, there is reason to believe that saw mills are used in England.

Female Virtue.—To depart in the minutest article from the nicity and strictness of punctilio is as dangerous to national honor as to female virtue. The woman who admits of one familiarity seldom knows where to stop or what to refuse: and when the councils of a great country give way in a single instance—when they are once inclined to submission, every step accelerates the rapidity of the descent.—*Junius.*

Elastic Marble.—From the quarries in Berkshire county, Mass., are obtained specimens of elastic white marble, of a beautiful texture, and susceptible of a high polish. If there are other localities, they have not been very distinctly recorded. Supported at the two extremities, the slabs spring like a board placed in a similar position, though the bending is much less. Mineralogical cabinets should all be furnished with samples of this singular stone.—*Scientific Tracts.*

To take out Stains in Mahogany.—Take two ounces of oil of vitriol (sulphuric acid) and the same quantity of muriatic acid, and mix them by shaking in a vial; and when to be used, lay it upon the spotted part with a rag. Afterwards wash with water, and polish as usual.

Superior Garden and Agricultural Seeds.

THE subscriber has now on hand a full supply of Garden and Field Seeds, growth of 1835, among which are all the finest Cabbages, Cauliflowers, Brocoli, Radishes, Peas, &c., that are cultivated in England, France and Holland, together with every sort that can be raised to advantage in our own country, and which are grown expressly for my use from stock furnished and raised by the most experienced gardeners in this country: in short, every article emanating from my store, warranted *genuine and fresh.*

Also, Skinless Oats; Potatoe Oats, 44 lb. weight to the bushel; Perennial Rye Grass; White Clover; Lucerne or French Clover; Orchard Grass; Herd's Grass; White Mulberry, and Yellow Locust Seeds; Spring Tares or Vetches; genuine Mangel Wurtzel, and Ruta Baga and Field Turnep Seeds, well worth the *attention of Farmers.*

Wholesale dealers supplied on accommodating terms. Price lists, by the pound and bushel, furnished on application, as also catalogues of my whole collection, gratis.

Flower Roots; Bulb Glasses; Greenhouse Plants; the best Books on Gardening, &c. at various prices; Bird Seeds of every sort; Pearl Barley; Oatmeal; Embden Grots for Gruel; Split Peas; White and Brown Mustard Seed; Garden Flower Pots and Garden Tools; Russian Bass Mats.

The Flower Seed department embraces the choicest variety to be found in this country, in which are included choice double Dahlia Seed, Carnation and choice Pinks, German and China Asters, splendid Double Balsoms, with an addition of several new varieties, accompanied with a printed direction for culture and management.

Orders will be punctually attended to and carefully packed and forwarded as directed, but as the collection of distant debts are often troublesome, and sometimes impracticable, it is desired that satisfactory references be made to persons in Albany, when the order is not accompanied with the money.

W. THORBURN, Seedsman,
sept 26 347 N. Market st., opposite Post Office.

The Silk Culturist, & Farmer's Manual.

"THE object of this publication is to disseminate a thorough knowledge of the cultivation of the Mulberry Tree in all its varieties, the rearing of Silk Worms, the production of Cocoons, and the reeling of silk in the most approved method."

It will also contain interesting matter on Agricultural subjects generally.

Published monthly at Hartford, Conn., by the Hartford County Silk Society, at 50 cents per year, in advance. Subscriptions received at the Rochester Seed Store, by

july 25 REYNOLDS & BATEHAM.

Ho, ye Farmers, that are in Debt.

THE following dialogue was supposed to have occurred in New York, between a Dutchman and a Frenchman, Madder growers in their respective countries.

Meinhere. De tam Yanke dey shpoil our matter drade.

Monsieur. What's that you say, sir?

Mein. Dat leetle tam Yanke lives in Pridgewater, he puts von, two, tree leetle root in de cround, and he digs up von, two, tree pushel, and he shpoil all our drade shure as tuyvels.

Mons. Fe gar.

Mein. Now I tells you vats we must to, we must shtop senting tirt to dat gountry, we must not sent to dat gountry more as von peck of tirt to von pushel of matter, and we must not tri and crind it pefore we wash it, we must not bick out our pest roots to sent to England, put we must wash them altogeder, tri dem, crind dem coarse, den fan dem, den tri dem agin, den crind dem fine, zo as de news-baper zays de tam Yanke does.

Mons. What will England do then, she cannot raise madder for herself, and she cannot send any more of her Turkey reds to the American market, without we select our brightest root for her.

Mein. Den I say, tam her, let her co widout. We can zell all our matter in America dese ten years, if we tont cheat dem beople any longer. Put I tell you some ting, Monsieur, dat vill make your eyes bop out of your head, if you pelieves it.

Mons. What is that?

Mein. Dat leetle tam Yanke dat lives in Pridgewater zays, dat he's coin to Ohio next sbring, and he's coin to blant de whole sdate, exzept zome bart of Michigan, with matter roots, and he's coin to enclose it wid de mulperry hedch to make de zilk vorms eat de leaves.

Mons. Thunder and lightning, they will ruin our silk trade with them.

Mein. Den de news-baper zays he's invited de beople to gom and zee him tig and wash and tri and crind matter every Monday and Zaturday afternoon, and he vill szhow dem all apout it, and when he's cot dem all larned he's coin to trive dem to Ohio and Illinois to tig matter on de brairie. Oh, de tuyvels, de merchan's of our gountry vill puy of dem pecause dey vill zell cheaber as we.

Mons. But, Meinhere, you fear those Yankees will be able to undersell you in your own country, when they cannot raise seed roots in ten years to plant enough to supply their own country dyers.

Mein. Never you minds dat, dem tam Yankees vill make roots wid deir shack-knives if dey cant tig dem.

Mons. But where is your Yankee, that lives in Bridgewater, to get his money to buy all his madder roots to plant the whole state of Ohio, as this newspaper tells us; it takes 8 bushels to plant an acre, and they ask $3,00, $3,50, and $4,00 a bushel.

Mein. Vy, he zays he's cot 800 pushel, and he's invited the shitizens of —— to choin him, and he vill carantee dem 12 1-2 ber zent. ber annum vor their money, or he vill dry to do better as dat by dem, and I pelieves he can; he tells dem he can clear von hunder ber zent once in 4 years, and I pelieves he can do dat. Oh, de toyvel, he vill shboil our drade; he's now tigging his matter and when he gits trough, he's coin to brint what he's found out and zend it to all his gustomers. Sept. 1835.—oc 3-3t

Monroe Horticultural Garden & Nursery.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, &c. &c.

ALSO—A few hundred of the Morus Multicaulis, or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for *Mr.* Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them, gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.

Greece, *Monroe* co. N. Y. Sept. 18, 1834.